

# ESSAYONS *Forward*

U.S. Army Corps of Engineers

Gulf Region Division (Provisional), Iraq - Volume 4, Issue 3

March 2007



## Nasiriyah Pump Station Turned Over to Iraqi Government

[www.grd.usace.army.mil](http://www.grd.usace.army.mil)



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U.S. Army Corps of Engineers—Gulf Region Division



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*Iraq Image....*

Photo by Noah Miller

Local entertainers perform a *dabka* to celebrate the dedication of a water treatment plant in Erbil, Iraq. The facility now provides potable water to 80 percent of the population of Erbil.

ESSAYONS FORWARD

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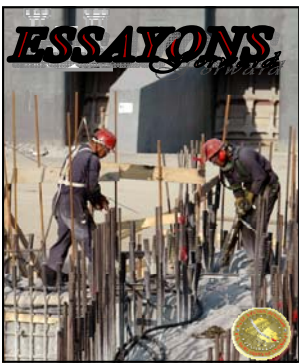
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USACE photo by James Bullinger

(Cover) Workers at the Nasiriyah Drainage Pump Station do rebar work on the new facility.

# KEEP IT LOCKED ON...

Al Asad	107.3 FM	Kirkush	107.3 FM
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Balad	107.3 FM	Tal Afar	107.3 FM
Falujah	105.1 FM	Taqquadum	107.3 FM
Kirkuk	107.3 FM	Tikrit	100.1 FM

Freedom Radio



## Commander's Two Bits

This month and next, many of the military personnel assigned to the Gulf Region Division will redeploy and new personnel are now answering the call to duty. As we say "see you next post" to the Soldiers from the 412th Engineer Command of Vicksburg, Miss., we also greet their replacements from the 416th Engineer Command from Chicago. The 416th will be challenged to fill the large boots the 412th leaves behind.



Transition is a challenge—one this organization has come to grips with because of the regular cycle of gains and losses of military, civilian, and contractor personnel alike. But the next two months will be an especially turbulent as a great number of the military positions and functions will be rotated. It is imperative we maintain the momentum that the Division has gained through the sweat and perseverance of so many.

As of March 27, there have been 3,656 projects completed and there are an estimated 922 more projects in the works with more planned. These projects, funded by the Iraq Relief and Reconstruction Fund, Operations and Maintenance Army, Military Construction, Donations from Iraq, Multi-National Security Transition Command-Iraq, and Command Emergency Relief Program are all critical to our mission to assist the Government of Iraq in providing basic services necessary for popular support and stability. Funds provided by the U.S. are only a part of the overall effort, which will be continued with Iraq's own enormous human and capital resources, and the support of other donor nations.

In GRD's 36 months of existence the principle dynamic has been change, and transition and each of us have built upon the decisions made by those before us. Keeping our positive momentum going is important to meet the transition to Iraqi successes. It takes time, effort, and proper planning to conduct an effective and successful transition.

For the most part, replacements will arrive two or three weeks before the incumbents depart. This allows time to train up our new team members on the "who, what, when, where, why, and how." We must continue to maintain communication and build positive relationships with Gulf Region districts, and other military units and civilian organizations in Iraq.

Finally, be supportive...remember how you felt when everything was unknown to you. Build on what you know and set your replacement up for success.

I continue to be impressed by what you accomplish every day – the challenges are enormous. It is obvious that you do what you love and love what you do!

### ESSAYONS!

**Brig. Gen. Michael J. Walsh**  
Gulf Region Division  
Commander

## Cmd. Sgt. Major's Message



The basic fundamentals are key and essential to maintaining a solid organization. It is important that everyone review these basic tasks. Our Gulf Region Division does a very good job at our business and we spend a lot of time taking care of the health, welfare, safety, protection, training and morale of our people. As you know, the basic fundamentals apply across the board to everything and everybody. We have already started and have even just completed some basic fundamental training for contracting, construction management and quality assurance/quality control. However, the basics go much further than just training, and apply to discipline as well.

As your command sergeant major, I provide input to the commander and I enforce the established policies and procedures. At the same time, I ensure these standards are met and maintained by personnel within our organization. I am the eyes and ears for the commander as I travel throughout the country visiting our people in the 45 different locations and countless project sites where they live and work.

It is imperative that all of us follow the rules and correct those that may not fully understand them. We will always find someone who needs the necessary corrections; however, everyone who sees something that is not right should correct it. Whether it is a safety issue or a routine guideline that is not being followed, we must address the issue – large or small. I've always said, "Don't walk by" issues that need correcting because the first time you do this is when you become part of the problem. And, here in Iraq, that can have a significant impact on the organization and the personnel safety of everyone.

So, if or when you find yourself not in compliance with the policy, procedures or general orders, do your part to get it right. When you see your co-workers out of compliance, take care of them as well. We are all in this together and no one is above the rule of law or good order and discipline of our organization. We value everyone in this command, and in this dangerous and hostile environment wrong choices have very real consequences.

Our business starts with the basic fundamentals and it ends with our reputation as a quality engineering organization. Our people take this business seriously and this business is serious about people taking care of people. We affect change in people's lives everyday because we are builders and we maintain infrastructure that makes a positive difference in the quality of life for others.

We are all a part of something very special in this command and we make such a positive difference for so many people throughout the country of Iraq. We know our efforts are significant. We all feel a sense of pride in volunteering to see this effort through to the end and through our patriotism we display everyday.

### THE DUST DON'T SETTLE HERE

**Command Sgt. Maj. Bill McDaniel**  
Gulf Region Division  
Command Sergeant Major

# Two Reconstruction Projects Turned Over in Dahuk Province:

## Kindergarten, Power Lines

by LuAnne Fantasia  
Gulf Region North

**DAHUK PROVINCE, Iraq—** Because the concept of Kindergarten is a new one to Kurdish parents, enrollment in the Batel Kindergarten is just now filling up - a year after it opened its pink doors.

“It took parents a little time to decide if they wanted their children to try this new thing,” said Muhammed Hassan, project engineer for the U.S. Army Corps of Engineers, Dahuk Area Office. With about 30 little ones attending classes today, Hassan said there are more than 100 students registered for the next session.

The school has six classrooms, windows, toilets, running water and electricity, a theater room with a small stage, an administrative room and a playground space outside for the kids to run and jump.

“They still need furniture,” Hassan said, “but maybe there will be funding for that next year.” The teachers and students are happy, however, to take their shoes off and sit on the carpet in the large, sunny classroom with modest school supplies and toys; reciting, counting and singing, as normal, happy children do.

“With or without furniture and supplies, this is a healthy environment for a good education for children,” Hassan said.

As project engineer, Hassan provided

**Although classroom furniture and traditional school supplies are missing, Batel Kindergarten students and their teachers energize the empty rooms with recitation, singing and the spirit of learning.**



USACE photo by LuAnne Fantasia

## Construction Rollup: Project Starts, Completions

**BAGHDAD, Iraq** – The U.S. Army Corps of Engineers Gulf Region Division and the Department of Defense have completed 645 construction projects between March 5 and March 30, 2007 – bringing the total number of completed projects to 12,040.

Currently, there are 1,639 construction projects ongoing – funded through the Iraq Relief and Reconstruction Fund, the Development Fund for Iraq, the Commander’s Emergency Response Program, the Economic Support Fund and the Iraq Security Forces Fund.

One of the completed projects is a 400 kV electrical distribution network in Baghdad Province. The \$13.1 million project rehabilitated the electrical distribution system in eight sectors of Sadr City, and installed new 33 kV feeder lines from Jameela to the New Baghdad substation. The project provides the distribution of electricity to an approximately 120,000 area residents.

Other completed electrical projects in Baghdad Province include the Al Mahmoudiyah overhead electrical network - \$45,500 – which supplied new electrical distribution poles, transformers and cabling to provide electrical service reliability to more than 250 homes; the Al Jezzaer overhead electrical projects - \$63,100 – which also supplied new distribution poles, transformers and cabling to provide reliable electricity to more than 500 homes.

Construction began on two substations in Baghdad Prov-

ince. The \$47.6 million Jameela Farabi 132 kV substation project in the 9 Nisan district will increase electrical distribution to more than 173,000 residents, and is expected to be completed in December 2008. The \$2.8 million Yousefiya 33/11kV substation project will install underground feeder lines and install new switchgear and transformers. The project is scheduled to be completed in November 2007.

The results of these efforts have improved the quality of life for all Iraqis:

Due to added capacity and normal operation and maintenances of systems, electrical generation is at 3,997 megawatts, serving more than 250,000 homes with an end goal of 6,000 MW and 1.3 million homes served. Electrical generation megawatts are dynamic, owing to interdiction of lines by insurgents and unscheduled maintenance.

Potable water is at 449,200 m3/day with 2.4 million people affected with an end goal of 1.1 million m3/day and an end goal of 5.2 million people affected.

Crude oil production is at 2.6 million barrels per day with an end goal of 3 million BPD. LPG production capacity is at 1,700 metric tons per day, with an end goal of 3,000 metric tons per day.

Throughout Iraq, U.S. government ongoing projects contribute to the ever-improving quality of life and economic stability – helping provide the foundation for the country to build upon as it overcomes a generation of neglect.

quality assurance oversight on this completed reconstruction project, as well as three ongoing public health clinic projects in Dahuk.

**Dahuk to Aqra transmission line**—Ezzat Khorsheed is a quality assurance project engineer for the 132kV double circuit overhead transmission line from Dahuk to Aqra—an \$18 million project that brings electricity directly from Turkey to more than 100 Kurdish villages in the Aqra area.

“The electricity is currently routed from Turkey through Mosul, then out to these remote villages,” Khorsheed explained. “This project provides a more direct feed, increasing service availability to people in more than 100 villages.” Currently, these residents have electricity four to five hours daily, he added.

There are 299 towers that dot the mountains, valleys and flatlands, from Dahuk to Aqra, that will change the direction of the power source from Mosul to the Dahuk substation. The project is a joint contractor venture, according to Khorsheed.



**Ezzat Khorsheed is the quality assurance project engineer for an overhead transmission line project from Dahuk to Aqra that will ultimately bring electricity directly from Turkey to more than 100 Kurdish villages in the North.**

USACE photo by LuAnne Fantasia

# 8th Iraqi Army Division To Get Six New Garrison Buildings

by B.J. Weiner  
Gulf Region South

**QADISSIYAH, Iraq** – Restoration and refurbishment of existing Iraqi army facilities has taken center stage as the focus of the U.S. Army Corps of Engineers shifts to capacity development in all aspects of its reconstruction projects. With the completion of some projects at the 8th Iraqi Army Division Headquarters, USACE has dedicated another six buildings, worth a total of \$16 million, to complete that effort.

The buildings are two stories, and 50 meters by 35 meters, according to Lt. Col. Ed Patterson, Forat area engineer. Designed to be a public works department, the buildings are to be built at six 8th Iraqi Army Division facilities throughout the five provinces in the Forat area: Qadissiyah, Babil, Wasit, Karbala and Najaf.

“You would have one person who works in the building doing work orders and work electrical project,” said Patterson. “This will be a garrison support mission and it is my understanding that he (8th Iraqi Army Division Commander Maj. Gen. Othman Ali Farhood) will employ a garrison support commander who will do nothing but that.”

Patterson said the project falls under the capacity development initiative of Col. Gary Johnston, commander of Gulf Region South. This initiative emphasizes mentoring and training Iraqi personnel in all aspects of civil affairs – from engineering to maintenance training. “Capacity development is being emphasized throughout Iraq,” he said. “And it has a lot of merit. What I would like to see is standing up a vertical engineering facility so we could train them in all aspects of plumbing, carpentry and electrical maintenance. This would really help sustain them in the future, when we are not here.”

Patterson met with Farhood recently and told him about the new buildings. Farhood promised to meet with his division commanders to decide where the buildings should be

constructed. “Once we get that information, we can get the solicitations started right away,” said Patterson. “I’d like to have this whole thing moving by April 1st – and we can do it.”

The other projects that USACE has built for the Iraqi army include staff offices, a dining facility and a maintenance facility worth \$2.4 million; a barracks facility, worth about \$712,000; and a security wall for about \$873,000. These projects help the 8th Iraqi Army Division, which is responsible for security in the five south-central provinces. “The 8th Army has about 10,800 soldiers,” said Patterson. “And we work well with the division.”

Farhood said that the Corps has provided much needed expertise and support for his division. “I have been with the 8th Division a long time and, frankly speaking, all of our facilities have been built by the Corps. I am most satisfied with this work, but my ambition is to see more buildings such as officer housing and gyms built for the division.”

He added that he wanted to thank all Corps employees, military and civilian, and all Americans for supporting the army and taking part in Iraq’s reconstruction. “You have made sacrifices for the sake of starting our new army,” he said. “I think the army is better than last year’s, and we should be able to secure the areas and provide safety for all people. My wish is also after our army has the ability to do this; that you come back to Iraq as tourists to see what you built and record in our history.

“I need to exploit this moment to express my thanks and appreciation for the U.S. Army and its help to the Iraqi army and for the sacrifices of people who have helped the Iraqi army under the very bad circumstances inside Iraq,” Farhood said. “Bear in mind we are one mission - one team against terrorists. I thank you very much.”

**Two Iraqi soldiers sit outside the 8th Iraqi Army headquarters administration building. The U.S. Army Corps of Engineers provided quality assurance on the project.**

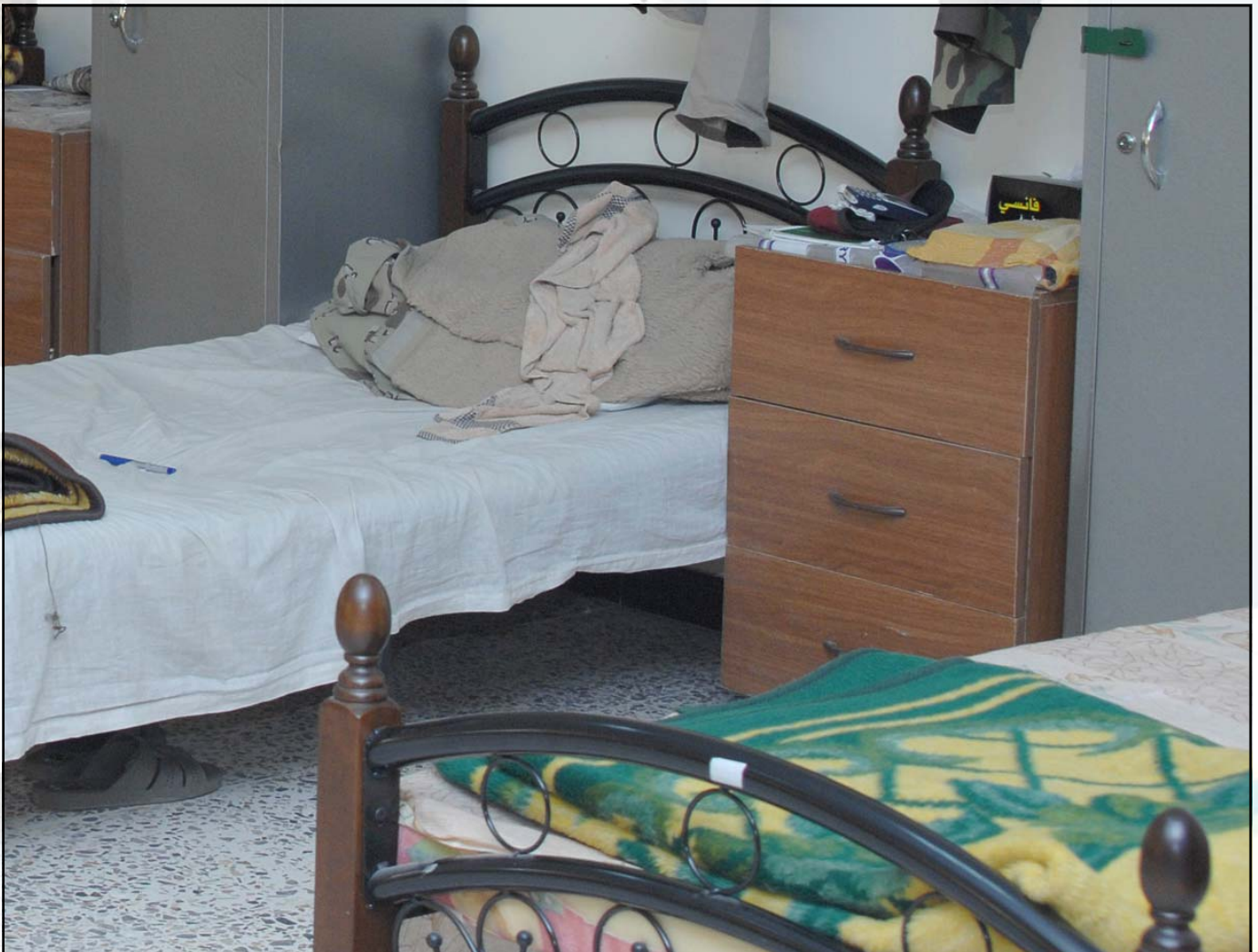


USACE photo by B.J. Weiner



(Left) 8th Iraqi Army Division commander Maj. Gen. Othman Ali Farhood speaks to an interpreter at the Army's headquarters building.

USACE photos by B.J. Weiner



(Above and watermark) The above 8th Iraqi Army Division headquarters officer's quarters received quality assurance support provided by the U.S. Army Corps of Engineers for the construction project .

## New Water Treatment Plant



Photo by Noah Miller

Ambassador Khalilzad, KRG Prime Minister Barzani and Col. Frederick Wolf, Gulf Region North district commander, participated in a dedication ceremony at the Erbil Water Treatment Plant. The \$191 million project, which was completed in July, provides potable water to 80 percent of the Erbil area residents. More than 80 Iraqis were trained in the operation and maintenance of the plant.

## Courthouse Project Helps Build A Secure, Self-Governing Nation

by Polli Barnes Keller,  
Gulf Region North

**TIKRIT, Iraq** - In support of creating a more secure and stable Iraq, the U.S. Army Corps of Engineers completed the \$347,500 construction of the Khan Bani Sa'ad Courthouse located in the Diyala Province.

Built in a highly volatile area, this 860 square-foot, two-story building will help the Iraqi government assume responsibility for the security and governance of their province. Consisting of one courtroom and 12 office areas, the facility compound has an inner and outer force protection brick wall with an entry control point and secure parking for the judge and other court officials.

Last December, construction of this project was delayed due to the security

situation in the area and the murder of the prime contractor. However, the project reached completion in three months time and is ready to turn over to the Diyala Ministry of Justice.

"What makes this facility special is that our Iraqi Resident Office in Diyala Province did it all," said Col. Frederick S. Wolf, U.S. Army Corps of Engineers, Gulf Region North commander. "They developed the project, managed its construction, and ensured that the contractor delivered quality work that we can be proud of."

With an expert staff to provide oversight and training, the USACE transitioned one of its resident offices located in the northern region to an all-Iraqi resident office. These engineers plan, resource, manage and construct projects at the local level. To support

these offices, USACE provides the administrative and logistical support necessary to carry out and sustain this change. Khan Bani Sa'ad Courthouse is a product of this staff.

"During our last visit to the Courthouse, there was a genuine sense of pride and ownership of the facility," said Maj. Neil Doherty, USACE deputy area engineer-forward. "The local representatives were proud of the quality of the construction and looked forward to using the new courthouse. I hope they start using it soon and it helps affirm the judicial process in the area"

As Iraq continues to build its capacity to govern and provide for its people, ensuring justice is fundamental and at the forefront to build a secure, stable and self-governing nation.



# Iraq’s Agriculture Bounces Back After Years of Neglect

by Polli Barnes Keller  
Gulf Region North

**TIKRIT, Iraq**— After decades of strain, the Ministry of Agriculture in the Ninewa Province reported a significant increase in the wheat crop yield for 2006.

Today, the U.S. Army Corps of Engineers is working with the Government of Iraq to help restore the grain marketing infrastructure by renovating two granaries in the Ninewa Province. With the increase in wheat production, having a place to store the crop is vital.

Once considered the second largest value sector in the country, agriculture in northern Iraq took a dramatic downfall during the years of the Saddam Hussein reign; heavily influenced by Iraq’s involvement in military conflicts and by the governments efforts to promote and control agriculture production.

The renovation of these two facilities at a combined cost of approximately \$2 million will provide a reliable source for the processing, storage and distribution of various grain crops, which is needed to restore agriculture productivity.

“The Sinjar and Tal Afar granary renovation projects are beneficial to those farmers in the Ninewa Province and Iraq’s agricultural industry,” said Maj. Vincent Navarre, U.S. Army Corps of Engineers resident engineer for the Mosul resident office. “These granaries are very rewarding Corps projects. We will have an opportunity to observe the facilities in operation during the next harvest season in Ninewa.”

Wheat is a fundamental staple crop in the Middle East. According to USAID reports, Iraqis consume nearly 4 million tons of wheat annually, yet only produce 500,000 tons of

milling-quality wheat.

More than 85 percent of the wheat consumed is imported, adding to the country’s economic burden.

These two state-owned grain silos feed into the Public Distribution System’s flour requirements; the more grain the government can store, the less they have to import thus easing the economic burden.

U.S. Navy Lt. Shane Stoughton, the Agricultural Team leader for the Ninewa Provincial Reconstruction Team explains, “Increasing the capacity of the granaries as a post-production grain marketing outlet benefits the citizens of northern Iraq and improves the macroeconomic situation of the country as a whole. These projects also raise the demand for grain, which in turn drives the production agriculture sector to achieve greater efficiency and output.”

The granaries in the Ninewa Province will help revive the agricultural sector, which will increase domestic production. With agencies such as the U.S.

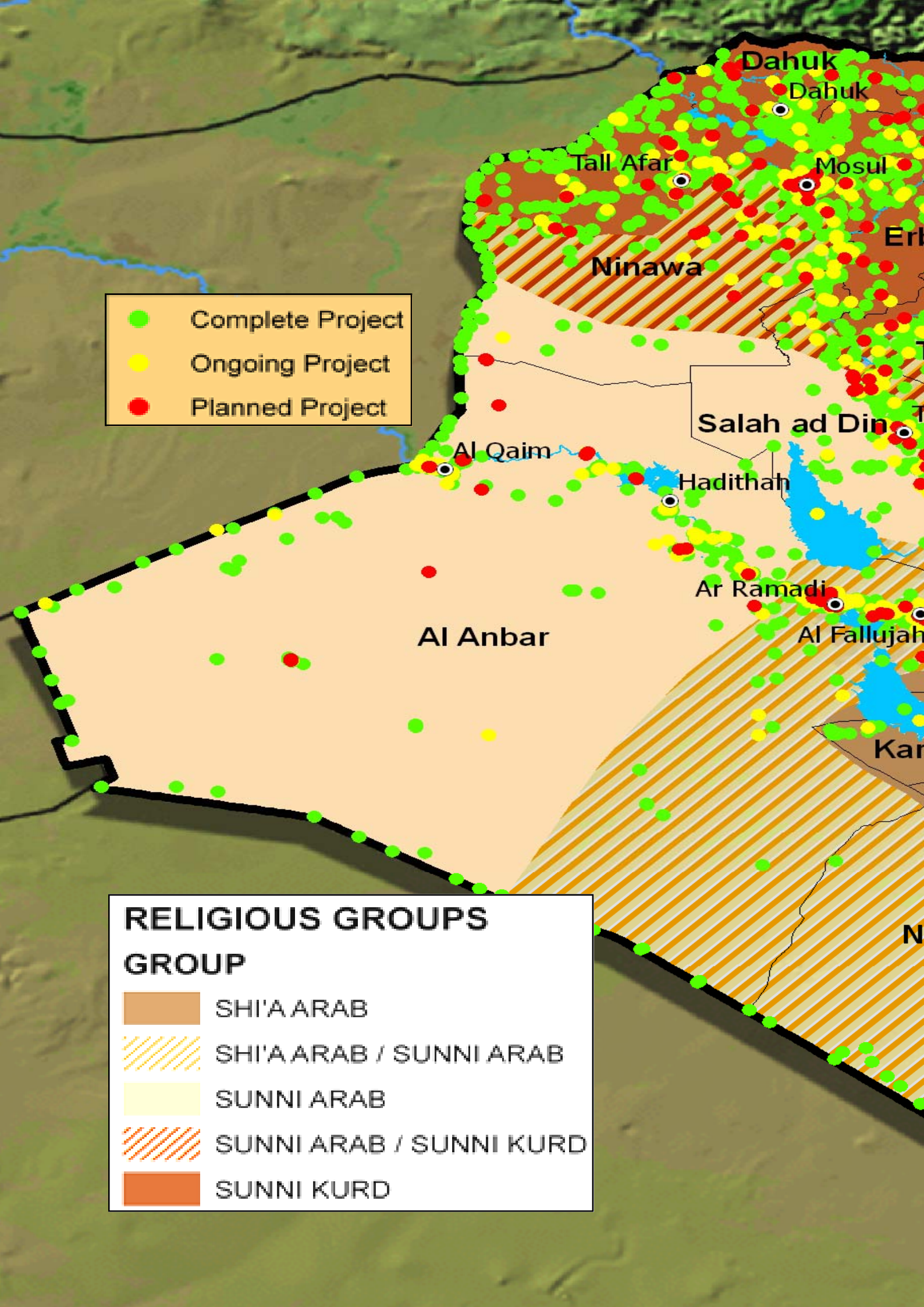
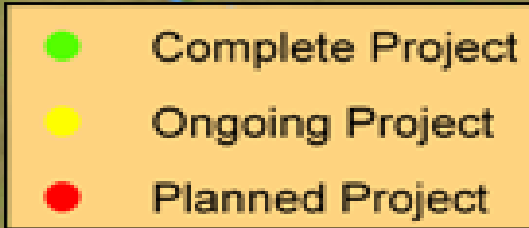
Army Corps of Engineers, USAID and other non-government organizations working to increase domestic production, the increase will provide income and employment opportunities to the Iraqi people as well as create stability through private sector development, reducing poverty and creating food security.

**The Iraqi Ministry of Agriculture works with the U.S. Army Corps of Engineers Gulf Region Division to help restore the grain marketing infrastructure in Iraq so that when fields like the ones below are full of wheat, there will be some place to store it.**

“The Sinjar and Tal Afar granary renovation projects are beneficial to those farmers in the Ninewa Province and Iraq’s agricultural industry.”  
— Maj. Vincent Navarre  
USACE Resident Engineer



USACE photo



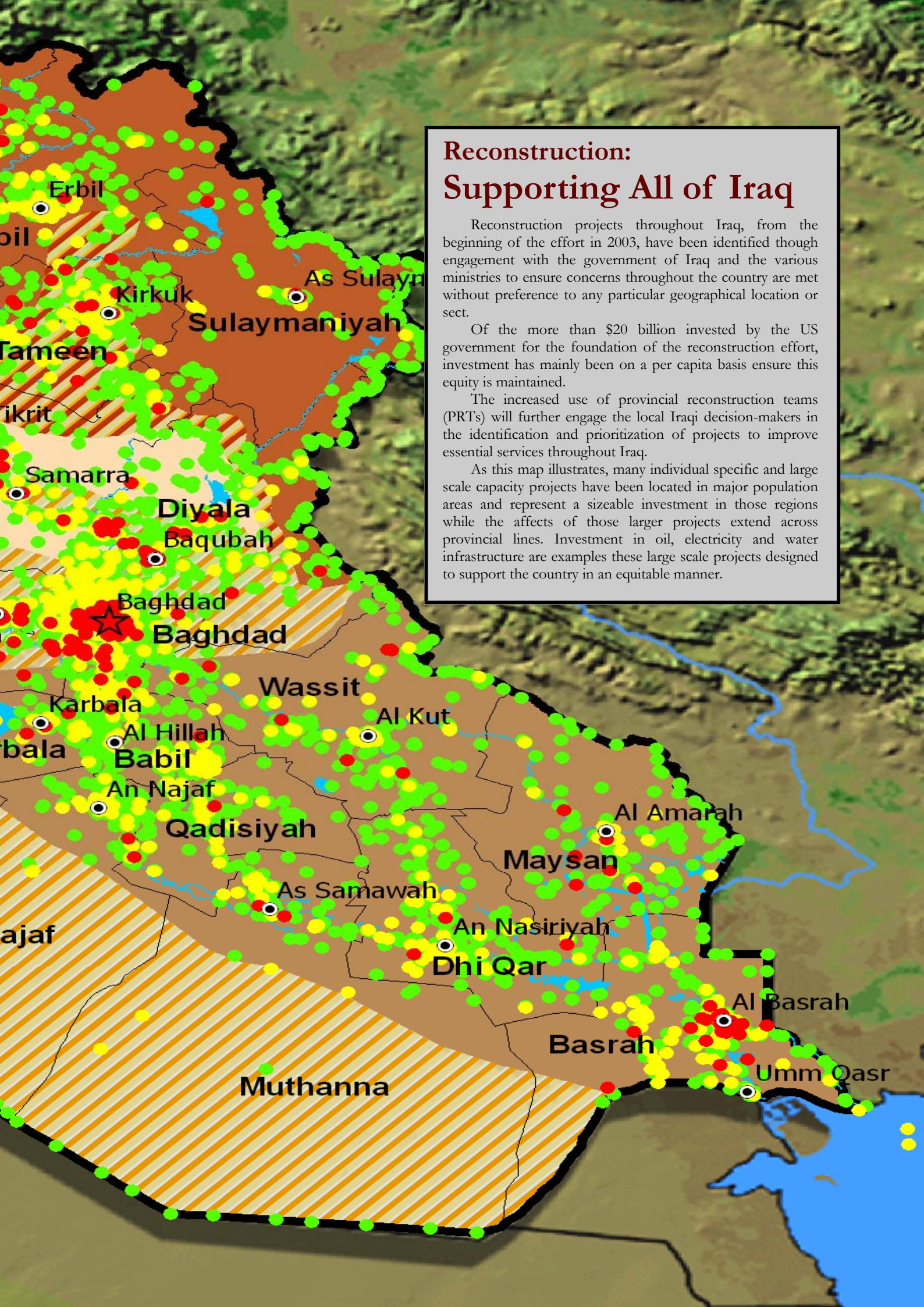
## Reconstruction: Supporting All of Iraq

Reconstruction projects throughout Iraq, from the beginning of the effort in 2003, have been identified through engagement with the government of Iraq and the various ministries to ensure concerns throughout the country are met without preference to any particular geographical location or sect.

Of the more than \$20 billion invested by the US government for the foundation of the reconstruction effort, investment has mainly been on a per capita basis ensure this equity is maintained.

The increased use of provincial reconstruction teams (PRTs) will further engage the local Iraqi decision-makers in the identification and prioritization of projects to improve essential services throughout Iraq.

As this map illustrates, many individual specific and large scale capacity projects have been located in major population areas and represent a sizeable investment in those regions while the affects of those larger projects extend across provincial lines. Investment in oil, electricity and water infrastructure are examples these large scale projects designed to support the country in an equitable manner.



# Iraqi Engineers Learn New Skills to Better Their Country

by Lana Aziz  
Gulf Region North

**DAHUK, Iraq** — A class of Iraqi engineers completed a four-day course in construction quality management, enhancing their job skills to achieve a quality product—safely, on time and within budget.

The instructor of the course, Peggy McBride is the U.S. Army Corps of Engineers' Quality Assurance lead for the Europe District. McBride explained how the construction quality management course, or CQM, teaches engineers the execution of tasks that ensure construction is performed according to plans and specifications; completed on time within a defined budget, and done in a safe work environment.

"This class gives the Iraqi contractors the ability to meet the Corps' construction contract requirements, and trains them to be contractor quality control personnel," McBride said. "We give them standards that can be applied throughout Iraq."

The 32-hour class develops the engineers' confidence in working with contractors throughout the life of a contract, offering general information about construction quality management — what to look for and how to ensure quality.

"The contractors are responsible for achieving that quality, but the engineers need to understand their role, and make sure they get a good quality product that the Corps can turn over to the Iraqi community," McBride explained.

Class participants receive student workbooks and CD-ROM modules, and training is divided into four phases: introduction, lecture, video clips, and site visits.

"Quality assurance succeeds through a partnership between the contractor and the government," McBride said.



USACE photos by Lana Aziz

(Above) Peggy McBride, the quality assurance lead for the USACE Europe District, teaches a four-day course in construction quality management to Iraqi engineers. The course enhances job skills to achieve a quality product, safely, on time and within budget. (Watermark) Iraqi contractors attend McBride's class.

"The contractor is responsible for the daily quality of the work, while the U.S. Army Corps of Engineers' quality assurance employee helps ensure that the contractor's quality control program is effective and productive," she added.

The CQM class is offered to Iraqi associates working for USACE, as well as members of the Provincial Reconstruction Team from the Ninewa Province and C Company, 403<sup>rd</sup> Civil Affairs Battalion personnel.

Masood Muhammed is an Iraqi civil engineer employed in the Corps' Dahuk Area Office, who completed the CQM course. "The training improved our engineering experiences and helped develop our technical skills, so we can handle engineering difficulties and fix contracting violations in accordance with the project engineers.

"All contractors should take such classes so they know the U.S. Army

Corps of Engineers' system" he added. "This will improve the 'lead by example' attitude the U.S. Army implements."

Renas Shwany, an architecture engineer who works with the Province Reconstruction Team, said that although the course curriculum is compact, it was complete. "Everything we learned from this class will be applied to our projects, so we can deliver better quality."

McBride said she and John Carr, Dahuk Resident Engineer, will offer this course for all Iraqi engineers in the Gulf Region District in Iraq, to include those in the Central and South Districts in Baghdad and Talil, respectively.

This enables the Iraqi government to assume responsibility for their infrastructure and, on a more personal level, enables Iraqi engineers to develop professionally, according to McBride.



# Al Musayib Maternity Hospital: Partnering Agreement Reached

*by Mohammed Alivi  
Gulf Region South*

**AN NASIRIYAH, Iraq** --In an atmosphere of mutual respect, trust and cooperation, the U.S. Department of State, the U.S. Army Corps of Engineers (USACE), the Provincial Reconstruction and Development Council (PRDC), and the Iraq Ministry of Health (MoH) signed a partnering agreement March 28 to build Al Musayib Maternity Hospital (MMH) in Iraq’s Babil Province.

“The partnering agreement is based on an essential interest in the successful and timely completion of a fully operational 50-bed maternity and pediatric hospital for the MoH,” said Robin Parks, project manager for GRS. “The main goal of the project is to reinforce support to the residents of Musayib and to the Babil Governorate. The community will get an aesthetically pleasing hospital where women can learn the importance of a safe and healthy pregnancy, and a childbirth program.”

Parks explained that one goal of the agreement is to build the hospital within the scope of work, on time and within budget, safely and securely. Another important aspect of the agreement is to ensure quality design, workmanship, materials and product; and to maintain professional working relationship between executive leaders and individual partner representatives on the work site.

“The project will create employment opportunities for the local community, establish strong leadership by providing continuous presence at the job site, and maintain strong communications through active committees and meetings,” she said. “The responsibilities of GRS will include providing contract administration for the construction of the hospital building and associated facilities and amenities listed in the scope of work. That includes the built-in components of the structures.”

USACE also will provide two facility maintenance engineers from the local community to work with the contractor from the onset of construction through two months after hospital turnover to MoH, Parks said.

“This effort is our attempt to assure there are trained, capable employees that are knowledgeable enough about the facility and its equipment to take proper care of it and perform preventative maintenance after (USACE) responsibilities end,” Parks said.

Greg Fillers, GRS chief of programs and project management, said “The Iraq MoH’s responsibility will be providing everything necessary to operate the hospital in the functional manner of which it was intended. This includes the timely provision of trained professional staff, medicines, medical equipment and supplies, furniture, communication equipment and all other necessary items

not listed in the contract. The MoH has agreed to continue the employment of the same two facility maintenance engineers employed by the Corps after its responsibility ends.”

“The Babil PRDC intends the hospital to be a signature legacy project of what the U.S. government has provided for the Babil Province, and it is being placed in the mixed Sunni/ Shia area of northern Babil,” he said.

This location demonstrates the fairness of the Iraqi and U.S. governments, according to Fillers. Al Musayib City has the greatest need in the Province, and estimates that 5,000 births and at least 25,000 child-care visits per year could be provided by the facility. He added that the hospital will have the basic modern built-in systems, such as intercom, fire alarms and Internet, plus a new type of medical gas system for operating rooms, patient rooms and the nursery.

“The project will be implemented adjacent to the Ibn Saif Al Jenabi Hospital in Musayib City, which will be demolished the moment the new hospital is opened,” said Fillers. “The MoH approved the construction of the hospital in Musayib in phases. All of the staff, equipment and supplies for the Ibn Saif Al Jenabi hospital will be transferred to the new hospital. Because this is intended to be a symbolic project, an options page has been included to allow for use of the full \$7.5 million of available funding for the Babil Province.”

## **PARTNERING AGREEMENT**

### Partners:

- Iraq Ministry of Health
- Provincial Reconstruction & Development Council
- U.S. Army Corps of Engineers Gulf Region Division

### USACE GRD Pledge:

- To complete a fully operational 50-bed maternity and pediatric hospital, on time and within budget, safely and securely.

### Projected Effects:

- Provide Al Musayib City support for estimated 5,000 births and 25,000 child-care visits per year.
- Provide hospital will have the basic modern built-in systems, such as intercom, fire alarms, Internet, and medical gas system.

# Umm Qasr Substation Project

by A. Al Babrani  
Gulf Region South

**BASRAH, Iraq** – The U.S. Army Corps of Engineers recently turned over a 132 kilovolt electrical substation at the port of Umm Qasr to the Iraqi government’s Minister of Electricity.

Improving and enhancing Iraq’s electrical system is one of USACE’s most important missions, according to Natalie J. Sudman, project engineer for the Gulf Region South. The \$13.8 million project will provide electricity to the port, and to the homes and businesses in the vicinity.

“The main function of the project is to take the pressure off of the existing over-burdened substations and provide a more even distribution within the region,” Sudman explained. “This allows the local electrical distribution directorate the opportunity to supply more electricity to the Umm Qasr port facility and the town itself.”

The substation plays an important role in maintaining the economic stability of Basrah, Sudman said, because it “supplies power to the port of Umm Qasr, which directly influences the economy of Iraq. The country needs more power for all kinds of consumption above and beyond domestic use, such as industrial and business use. The substation is part of the infrastructure that fulfills these needs.”

Electricity is generated by large turbine engines and fed in high voltages to step-down substations in various stages. “The main job of the 132 kV substation is to take the high voltage and convert it to 33 kV and 11 kV for distribution to the region,”

said Ali Shawi, an Iraqi project engineer working with USACE.

One of the most important things to note because electrical systems are not stable in Iraq, according to Shawi, is that USACE has successfully designed and constructed Umm Qasr 132 kv substation to reduce and eliminate shutdowns. The equipment used in the facility includes two 63 MegaVoltAmps transformers (VoltAmps is similar to Watts, but is a measure of the energy generated, not counting losses due to inefficiencies), a building control room, a high voltage switch gear room and a guard house.

Russell Holeman, chief of Engineering and Construction for GRS, said “This substation is one of the key components germane to improving electrical systems in the region. When combined with projects at the power plants and projects to restore the overhead distribution lines, the Umm Qasr substation will improve the distribution of power to the region.”

He added that having a reliable source of power is necessary to ensure efficient operation at Umm Qasr’s port facilities.

According to Holeman, the completion of the project not only improves the electrical distribution network in the province by reducing the load of the already overburdened substations, it also increases the power supplies with less down time and provides additional power distribution capacity for the region.

Currently, USACE is working on more than 60 projects in Basrah Province. These include upgrading the electrical distribution systems, providing water treatment units, improving roadways, and building new primary healthcare centers and Basrah’s Children’s Hospital.



# Provides Reliable Power



USACE photo by A. Bahrani

(Above and watermark) Transformers at the 132 kilovolt substation at the port of Umm Qsar.

(Opposite page) Natalie J. Sudman, USACE project engineer, right, stands next to Shawn Russell, deputy regional manager with Gulf Region Division electrical sector. Russell signed the project completion papers with the contractor in the control room.

# Nasiriyah Drainage Pump Station Turned Over to Iraqi Government

by Mohammed Alimi & B.J. Weiner  
Gulf Region South

**AN NASIRIYAH, Iraq** – In a simple ceremony recently, the Iraqi government's Ministry of Water Resources (MWR) took responsibility for completing the Nasiriyah Drainage Pump Station (NDPS) from the U.S. Army Corps of Engineers (USACE) Gulf Region South.

The pump station, a critical project for improving agriculture in the south, is 70 percent complete, according to Lt. Col. Dale Johnson, Camp Adder area

engineer, USACE. He emphasized that when USACE and its prime contractor, Washington International, Inc. (WI) reinvigorated the project in August 2005, construction at the pump station had been touch-and-go since 1992.

"The project began in 1983 with a Brazilian contractor who worked for three years and was forced to stop building because of political upheavals at the time, he said. "Work resumed again in 1992, but because of flooding and structural failures work was stopped again. In 1999, more work was done, but we didn't know

the extent of that until Washington International started work on the project."

However, once the project was underway, the contractor discovered unforeseen problems at the site, such as concrete and electrical issues. These created new costs not originally considered at the time the contract was let. Moreover, the time it would have taken to correct these issues created logistical problems that could not be easily resolved.

"USACE has reviewed and verified the cost challenges facing the contractor," said Johnson. "A mandated ceiling on the available funds was set by Congress, and the funds needed to finish the drainage pump station exceeded that." He added that work was suspended until the transition took place.

The contractor had reached to critical decision point on the project. The funding had allowed for complete cleanup of the station, which was buried in silt and mud; establishing the internal electrical system; completing a major concrete structure which would allow the siphon to function properly; and refitting and installing of nine of the 12 pumps, each with a capacity of pumping 316,000 gallons per minute. Because of the extensive up front reclamation and repair cost, it was determined, with agreement from the Iraqi government, to partner with the Iraqi MWR to complete the project.

"The U.S. Government has offered the government of Iraq a grant agreement to support the completion of the project by the MWR," said Johnson. "The Senior Consultant for Water Resources with the Iraq Reconstruction Management Office of U.S. Embassy Mission notified Minister Latif Rashid, MWR by letter of the U.S. decision to terminate the construction contract, and that the transition would take place as soon as possible."

He explained that the governments

**Workers at the Nasiriyah Drainage Pump Station do some rebar work on the new facility.**



USACE photo





USACE photo

**The inverted siphon structure at the Nasiriyah Drainage Pump Station is being built from the ground up, according to U.S. Army Corps of Engineer officials. The Corps completed cleanup of the station, which was buried in silt and mud; established the internal electrical system; completed a major concrete structure which would allow the siphon to function properly; and refitted and installed nine of the 12 pumps.**

developed a plan for the transition, which was in March 1. “The MWR will determine how and when they will proceed with the completion of the project, said Johnson. “The Corps is willing continue to have an advisory role with this project. Through the MWR many jobs may continue and I anticipate there will be additional work and jobs, based on the requirements that the project needs.”

He underscored the fact that the Iraqi government, engineers and construction companies are capable of completing this project, and have demonstrated successes within similar projects like the Eastern Euphrates Drain project in Al Muthanna and the Zuba Bridge in Dhi Qar.

Larry Jeffers, USACE project manager,

said that the NDPS is designed to pump runoff water drained into the Euphrates eastern drain and main outflow drain under the Euphrates River and out to the Persian Gulf. Work includes civil, electrical, mechanical, architectural design, installation of 12 pumps, 12 swing gates 14 supporting systems and secondary 6kv substation for the siphon.

He described the project as the largest drainage pump system in the Middle East and said that it drains 60,000 hectares or 232 square miles of productive farmland. This provides income for rural farmers and food for Iraq’s people. In time, Iraq could export things such dates and rice which would help to stabilize and build a healthy agricultural economy.

“Iraq has fertile farmland between the

Tigris and Euphrates Rivers, but irrigation runoff water is contaminated with high concentrations of salt from the soil,” Jeffers said. “Runoff water is collected by a drainage canal system and diverted around the pump station and is currently drained by gravity. Pumps will reduce water backup which causes Nasiriyah’s high water table of contaminated water seepage into the Euphrates.

“It is important that the provincial and local officials help safeguard the work site, buildings, equipment and materials. It is also important to lend support to the transition process to engage and work with these officials to keep the people and workers informed about the situation.”

## AFTER YEARS OF INFRASTRUCTURE NEGLECT

# Erbil-Ifraz Water Plant Provides

by LuAnne Fantasia  
Gulf Region North

**Erbil Province, Iraq**—The life of the water begins with melting snow in the Taurus Mountains of southeastern Turkey, zigzagging down into the Great Zab River.

At the end of a long journey through man-made machines with such names as intake pumps, sand filter cells, clarifying tanks, filtration, disinfection and booster stations; there are 300,000 people waiting for a 59-inch transmission pipe to bring them 4,000 cubic meters of potable water every hour.

During an onsite event last week to recognize the Coalition's effort and to officially celebrate the success of the Erbil-Ifraz water plant, Nawzad Raof,

project engineer for the \$200 million reconstruction project, said that capacity will increase another 2,000 cubic meters within the next couple of months.

"The plant currently operates on two of its three pumps; each producing 2,000 cubic meters of water hourly," he explained. "[Contingent on electricity issues] a third pump starts running in April or May, at which point the plant will produce 6,000 cubic meters per hour, for more than half-million people in the Erbil area."

Raof said the plant was designed for two future expansions that will possibly be funded this year. "The transmission line can accommodate an additional 4,000 cubic meters per hour, for a total of 10,000 cubic meters per hours. That

would bring the plant's capacity to 100 percent," he added.

Years of a neglected infrastructure, violence, and sabotage created a shortage of potable water in Iraq – a country of some 30 million citizens. But, since the time of sovereignty in 2004, the Iraq Relief and Reconstruction Fund has effected improvements that bring 449,200 cubic meters of treated water per day to an estimated 2.4 million Iraqi citizens.

Estimates show that some 8.4 million Iraqis will benefit from 1,136,000 cubic meters of treated water daily when all of the original planned water projects are completed.

As keynote speakers at last week's event, both U.S. Ambassador Zalmay



USACE photo by LuAnne Fantasia

The recently completed \$200 million water plant project, the Erbil-Ifraz Water Plant, provides 300,000 people 4,000 cubic meters of potable water every hour through a 59-inch transmission pipe.

# Provides Safe Drinking Water

Khalizhad and Prime Minister Nechirvan Barzani expressed appreciation to the United States and the U.S. Army Corps of Engineers; to Fluor AMEC, the joint venture prime contractor; and to the Kurdish subcontractors for the united effort necessary to making this project a reality.

“This water supply project is America’s largest contribution to the development of Iraq,” Barzani said.

Gary York is project engineer at the U.S. Army Corps of Engineers’ Erbil resident office, which provided quality assurance oversight for the project. York returned to Iraq in March 2005 when the Erbil-Ifrac water project was a bare landscape.

“This community needs the next phase and I wish them the best to accomplish that. It will take \$40 to \$60 million to take the plant to its full capacity. The city is working on the water network. Waterlines are deteriorated but a lot of that leakage problem has been addressed now,” York said.

Erbil’s water system was last upgraded

around 1982, with its people receiving less and less water for over 25 years, he added. “When the Erbil-Ifrac water plant first started providing water last year, there were block parties and celebrations all over the city, because the city’s water system had been out of service a long time.

“This plant is a big step anywhere. We take potable water for granted, so you don’t understand what it’s like without water until you don’t have it.”



USACE photo by LuAnne Fantasia

Signs of positive relationships between local government, the Government of Iraq, and Coalition forces are prevalent in northern Iraq. This wall in Erbil shows the positive relationship between the United States and Northern Iraq.



## *Hail and Farewell*

### *Hailing:*

Paul Anderson, GRC  
John Boggs, GRS  
Kimberly Bowlin, GRD  
Wayne Birgado, GRC  
Tech Sgt. L. Campbell, GRD  
Capt. Angel Carey, GRD  
Tom Chamberland, GRS  
Chief James David, GRC  
Dr. William Deleo, GRC  
John Drake, GRD  
Travis Edwards, GRD  
Robert Henson, GRC  
Matt Johnson, GRD  
Jason Joseph, GRC  
Rick KostECKI, GRD  
Lt. Robert Leines, GRC  
Jose Marrero, GRC  
Jorge Medina, GRD  
Dean Mesenbrink, GRC  
Jennifer Montgomery, GRS  
Jay Morgan, GRC  
Thomas Nason, GRS  
Arthur Patterson, GRS  
SFC Michael St Pierre, GRS  
Sigmund Roh, GRS  
Lt. Col. Dave Tapscott, GRD  
Chris Tew, GRD  
David Valen, GRC

### *Farewelling:*



Jose Morales  
GRC



Bert Gray  
GRC



Navy Lt.  
David Noya  
GRC



Irena Williams  
GRC



Lauren Newsome  
GRD



Margaret Williams  
GRS



Priscilla Perry  
GRS



Jennifer Hughes  
GRS



Antonio Bastidas  
GRS



Matt Johnson  
GRS



Thomas O'Hara  
GRD



Army Capt.  
Candace Hurley  
GRD



Navy Lt. Cdr.  
Jeff Powell  
GRC



Brian Smith  
GRS



Air Force Master Sgt.  
Robert Drown  
GRD

Get more information on the reconstruction progress in Iraq on the Gulf Region Division Web Site. Updated print, photo and video content is added regularly. Get the news you are not otherwise hearing about the real progress on the ground by the men and women of our US and Coalition effort in Iraq. You can also sign up for automatic e-mail alerts to notify you when new information is added. Help get the word out on the ground truth in Iraq.

[WWW.GRD.USACE.ARMY.MIL](http://WWW.GRD.USACE.ARMY.MIL)